CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Order No. 82-2

WATER RECLAMATION REQUIREMENTS FOR:

TONY LEMA GOLF COURSE (SOUTHERN PORTION)
CITY OF SAN LEANDRO
EAST BAY DISCHARGERS AUTHORITY
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

1. The City of San Leandro, owner of the Tony Lema Golf Course (Southern Portion), hereinafter discharger, and the East Bay Dischargers Authority (EBDA) filed a Report of Waste Discharge dated October 13, 1981.

2. The discharger proposes to divert up to 0.8 million gallons per day of secondary treated effluent from its waste treatment facility for the purposes of irrigating the southern portion of Tony Lema Golf Course as shown on the attached map (Attachment A), hereinafter a part of this Order. An alternate source of secondary effluent to assure continuous high quality reclaimed water is EBDA's joint interceptor which traverses the golf course. Back up water supply is also available from East Bay Municipal Utility District (EBMUD) and possibly City wells from the northern portion of the existing golf course. The secondary treated effluent will receive additional chlorination in a new chlorination facility on-site, be transported to an on-site storage pond, and distributed by means of fixed sprinklers.

3. The discharger and EBDA will negotiate an agreement delineating individual responsibilities for those occasions when EBDA effluent is used for irrigation.

4. This Golf Course site was a former landfill that is now closed under Board requirements. The Golf Course use was reviewed as part of the landfill closure plan approved by the Board November 21, 1978. No significant water quality impacts or impacts on the landfill are expected as a result of the use of reclaimed water.

5. The Golf Course is currently isolated from developed land. It is bounded as follows:

   On the easterly side lies an existing dredge spoil disposal site.

   On the southerly side lies an existing wetland.

On the westerly side lies a roadway and the Bay.

On the northerly side lies the 250 wide flood control easement of the Ashland-Washington Canal. Immediately across the Canal lies the existing golf course. Diagonally eastward across the Canal lies the Seagate residential development now under construction.

Prevailing westerly winds, the Canal and other buffers, and appropriate irrigation heads at the northeastern corner of the new golf course area will mitigate the potential for the spray reaching residential areas.

The entire periphery of the golf course is to be fenced to control access.

There is reasonable assurance that the dredge spoil disposal and wetlands areas on the eastern and southern sides of the golf course will remain perpetually dedicated to these uses. Because all institutional arrangements for that dedication have yet to be completed, the discharger intends to design the irrigation system with provision for a buffer zone adjacent to these areas. The border distribution piping would be segregated so that, if necessary at some future date, this buffer could be irrigated with well or EBMUD water. The Board may consider further restrictive requirements for these periphery areas (fairways 12, 13, 14) at some future date should adjacent land uses change and require a buffer zone.

6. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Public Health, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. The use of reclaimed water for the purposes specified in paragraph 2, could affect the public health, safety, or welfare, and requirements for those uses are therefore necessary in accordance with the Water Code.

7. The Board adopted a Water Quality Control Plan for San Francisco Bay Basin in April 1975. The water quality objectives for reclaimed wastewater, as set forth in the Basin Plan, specify those limits prescribed in Title 17, Section 8025 through 8050, California Administrative Code. These objectives have been superseded by Title 22, Sections 60301 - 60357, California Administrative Code (wastewater reclamation criteria).

8. The Basin Plan identifies the beneficial uses of the underlyng ground waters as:

Industrial process water supply
Municipal supply
Agricultural uses

9. The wastewater reclamation requirements in this Order are in conformance with the wastewater reclamation criteria established by the State Department of Health.

10. The East Bay Municipal Utility District (EBMUD) has prepared a Final Environmental Impact Report (EIR) on the proposed project in accordance with the California Environmental Quality Act (CEQA). Potential water quality impacts identified in the EIR include:

    a. Wastewater may contain a variety of disease agents and its reuse can potentially spread disease among the expanding community.

    b. Pond storage and spray irrigation may cause odors and transmission of pathogens by aerosols.

11. The potential water quality impacts above will be eliminated or mitigated by adoption of these requirements regulating the use. Specifically, the following mitigation measures will be implemented:

    a. These wastewater reclamation requirements follow the California State Department of Health Services Wastewater Reclamation Criteria for golf courses; no sprays will be allowed to leave the property; no sprays will be allowed on players or workers; the golf course is currently relatively isolated from nearby residences; the Board will review requirements if nearby land uses change.

    b. Storage and spraying will be controlled to prevent odors by requiring the presence of dissolved oxygen and minimizing sulfides.

12. This Regional Board has notified the dischargers and interested agencies and persons of its intent to prescribe water reclamation requirements for the proposed uses.

13. This Board at a public meeting heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the City of San Leandro and EBDA in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Reclaimed Wastewater Use Specifications

1. The treatment, distribution or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The reclaimed water shall be at all times an adequately disinfected, oxidized water and shall meet the following quality limits at all times:

5-day BOD	30 mg/l, 30 day average; 60 mg/l, maximum
Dissolved Oxygen	1.0 mg/l, minimum
Dissolved Sulfide	0.1 mg/l, maximum
Coliform Organisms	Median MPN shall not exceed twenty-three (23) coliform organisms per 100 milliliters of sample or 240 MPN/100 ml for any two consecutive samples at some point in the treatment process. The median value will be determined from the bacteriological results of the last seven (7) analyses.

3. All above ground equipment, including pumps, piping and valves, etc., which may at any time contain waste shall be adequately and clearly identified and user shall make all necessary provisions, in addition, to inform the public that the liquid contained is unfit for drinking.

B. Reclaimed Wastewater Use Prohibitions

1. No wastewater shall be applied to the golf course during periods of rainfall or when soils are saturated so that runoff occurs.

2. No reclaimed wastewater used for irrigation shall be allowed to escape to areas outside the golf course by surface flow or airborne spray, except for minor quantities of surface flow, occurring as a result of normal irrigation practice.

3. Wastewater shall not be applied to golf course in such a manner or at such times as to expose golfers or other individuals to contact with spray droplets.

C. Provisions

1. This Order includes items 1, 2, 3, 4, 5, 8, 9 and 10 of the attached "Requirements of Design for Reclamation Facilities" dated October 1, 1975.

2. The discharger shall file with the Regional Board technical reports on self-monitoring work performed according to detailed specifications as directed by the Executive Officer.

3. At least ninety (90) days prior to the construction of the additional treatment and/or irrigation system the discharger shall submit a report, satisfactory to the Executive Officer, describing the irrigation system design and operation to meet these requirements, to minimize any public contact with reclaimed water, and to prevent possible cross connections to potable water supply systems. The discharger shall consider and include in the preparation of the report the attached CSDHS "Guidelines for Use of Reclaimed Water for Landscape Irrigation", "Guidelines for Use of Reclaimed Water for Impoundments", and "Guidelines for Worker Protection at Water Reclamation Use Areas."

4. The discharger shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267(c):

   a. Entry upon premises in which an effluent source is located or in which any required records are kept.

   b. Access to copy any records required to be kept under terms and conditions of this Order.

   c. Inspection of any monitoring equipment or method required by this Order.

   d. Sampling of any discharge or reclaimed water.

5. The discharger and EBDA shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the water reclamation requirements.

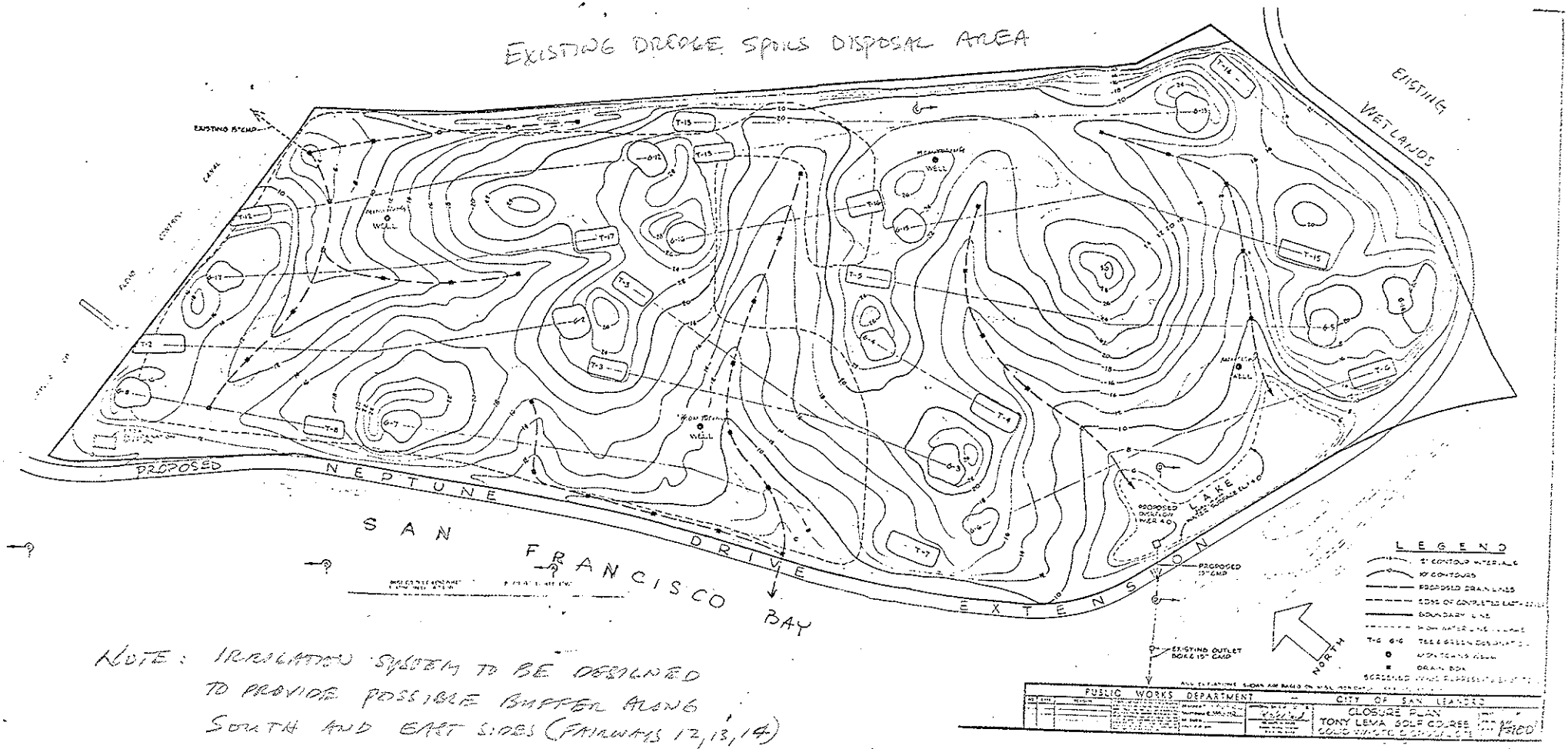
6. The discharger shall file with the Regional Board a report on waste discharge at least one-hundred & eighty (180) days before making any material change or proposed change in the character, location, or volume of reuse.

7. The discharger shall submit to the Board a copy of the agreement as described in Finding 3 ninety days before operations begin.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 20, 1982.

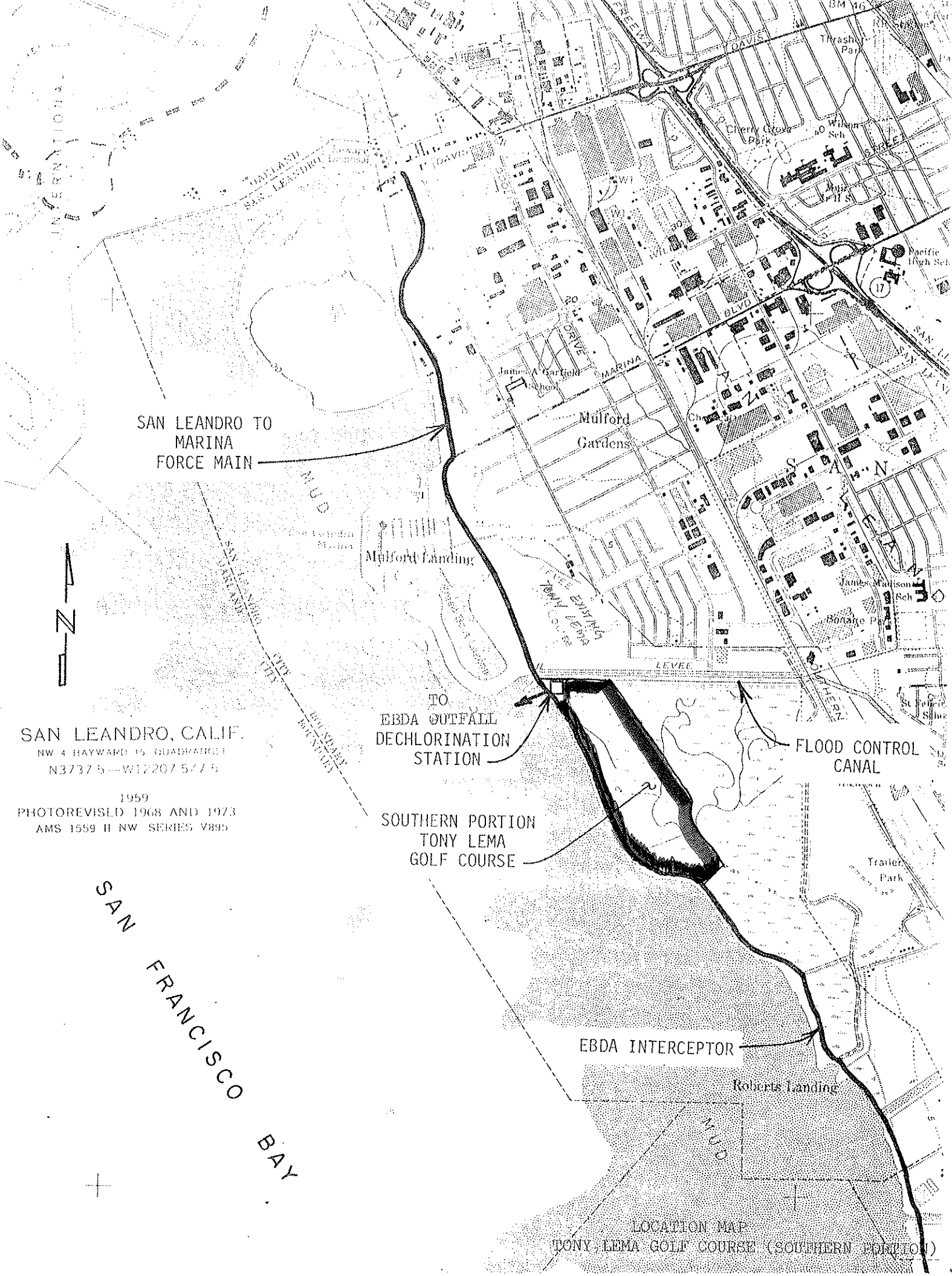
Attachments:
A. Map
Requirements of Design for Reclamation Facilities dated 10/1/75
CSDHS Guidelines (2)
Self-Monitoring Program

FRED H. DIERKER
Executive Officer



NOTE: IRRIGATION SYSTEM TO BE DESIGNED TO PROVIDE POSSIBLE BUFFER ALONG SOUTH AND EAST SIDES (FAIRWAYS 12, 13, 14)

ATTACHMENT A TO ORDER No. 82-



LOCATION MAP
TONY LEMA GOLF COURSE (SOUTHERN PORTION)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

UPDATED
DISCHARGE MONITORING PROGRAM

FOR

CITY OF SAN LEANDRO
SAN LEANDRO TONY LEMA GOLF COURSE DISPOSAL SITE
CLASS III SOLID WASTE DISPOSAL SITE
SAN LEANDRO, ALAMEDA COUNTY

ORDER NO. 82-2

CONSISTS OF

PART A

AND

PART B

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Discharge Monitoring Program is issued in accordance with Chapter 15, Article 5.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the discharger in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, Spring Branch are

considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of beneficial use: presence of water associated wildlife.
5) Flow rate.
6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.

1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.

c. The waste management unit.

1) Evidence of ponded water at any point on the waste management facility.
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.
4) Standard Analysis (SA) and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analyses, and observations in the following media:

1. Groundwater per Section 2550.7(b) and
2. Surface water per Section 2550.7(c)

and per the general requirements specified in Section 2550.7(e) of Article 5, Chapter 15.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written detection monitoring reports shall be filed by the 15th day of the month following the report period. In addition an annual report shall be filed as indicated in F.3 below. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring

reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.

2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.

3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods

other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

e. An evaluation of the effectiveness of the leachate monitoring or control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

2. CONTINGENCY REPORTING

a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

1) a map showing the location(s) of discharge;
2) approximate flow rate;
3) nature of effects; (i.e all pertinent observations and analyses); and
4) corrective measures underway or proposed.

b. A report shall be made in writing to the Board within seven days of determining that a statistically significant difference occurred between a down gradient sample and California and Federal Drinking Water Standards (Maximum Contaminant Levels, MCLs).

Notification shall indicate what MCLs has/have been exceeded. The discharger shall immediately resample at the compliance point where this difference has been found and re-analyze.

c. If resampling and analysis confirms the earlier finding of a statistically significant difference between monitoring results and MCLs the discharger must submit to the Board an amended Report of Waste Discharge as specified in Section 2550.8(k)(5) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of Section 2550.9 of Chapter 15.

d. Within 180 days of determining statistically significant evidence of a release, submit to the regional board an engineering feasibility study for a Corrective Action Program (CAP) necessary to meet the requirements of Section 2550.10. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern.

3. REPORTING

By January 31 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a $5^1/_4$" computer data disk, MS-DOS ASCII format, tabulating the year's data.

b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.

c. A map showing the area, if any, in which filling has been completed during the previous calendar year.

d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.

e. An evaluation of the effectiveness of the leachate monitoring/ control facilities, which includes an evaluation of leachate buildup within the disposal

units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

4. WELL LOGS

A boring log and a monitoring well construction log shall be submitted for each sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. ON-SITE OBSERVATIONS - Report Semi-annual

STATION	DESCRIPTION	OBSERVATIONS	FREQUENCY
V-1 thru V-`n'	Located on the waste disposal area as deli-neated by a 500 foot grid network.	Standard observations for the waste management unit.	Quarterly
P-1 thru P-`n' (per-imeter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit.	Standard observations for the perimeter.	Quarterly
L-1 thru L-'n'	At each point of discharge. Include a map indicating locations of discharge(s)	Standard test as outlined in on Table A.	Semi-annual

C. GROUND WATER and SURFACE WATER MONITORING - Report Semi-annual

Groundwater and surface water shall be monitored as outlined below and on Table A (Attached) and shown on Figure A (Attached). Control Chart Approach shall be used for Statistical Evaluation of data.(Each well is used as its own background).

Monitoring Points:

	Downgradient Point	Upgradient Point
Surface Water	SW3,SW4 (downstream)	SW5,SW6 (upstream)
Groundwater	G1,G2,G3,G4,	G5A
Debris zone(Leachate)	GR1,GR2	GR3

E. FACILITIES MONITORING

The Discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report semi-annually. The facilities to be monitored shall include, but not be limited to:

a. Leachate Collection and Removal System
b. Surface water impoundment
c. Leachate handling facilities
d. Perimeter diversion channels
e. Leachate Management facilities and secondary containment.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 82-2.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

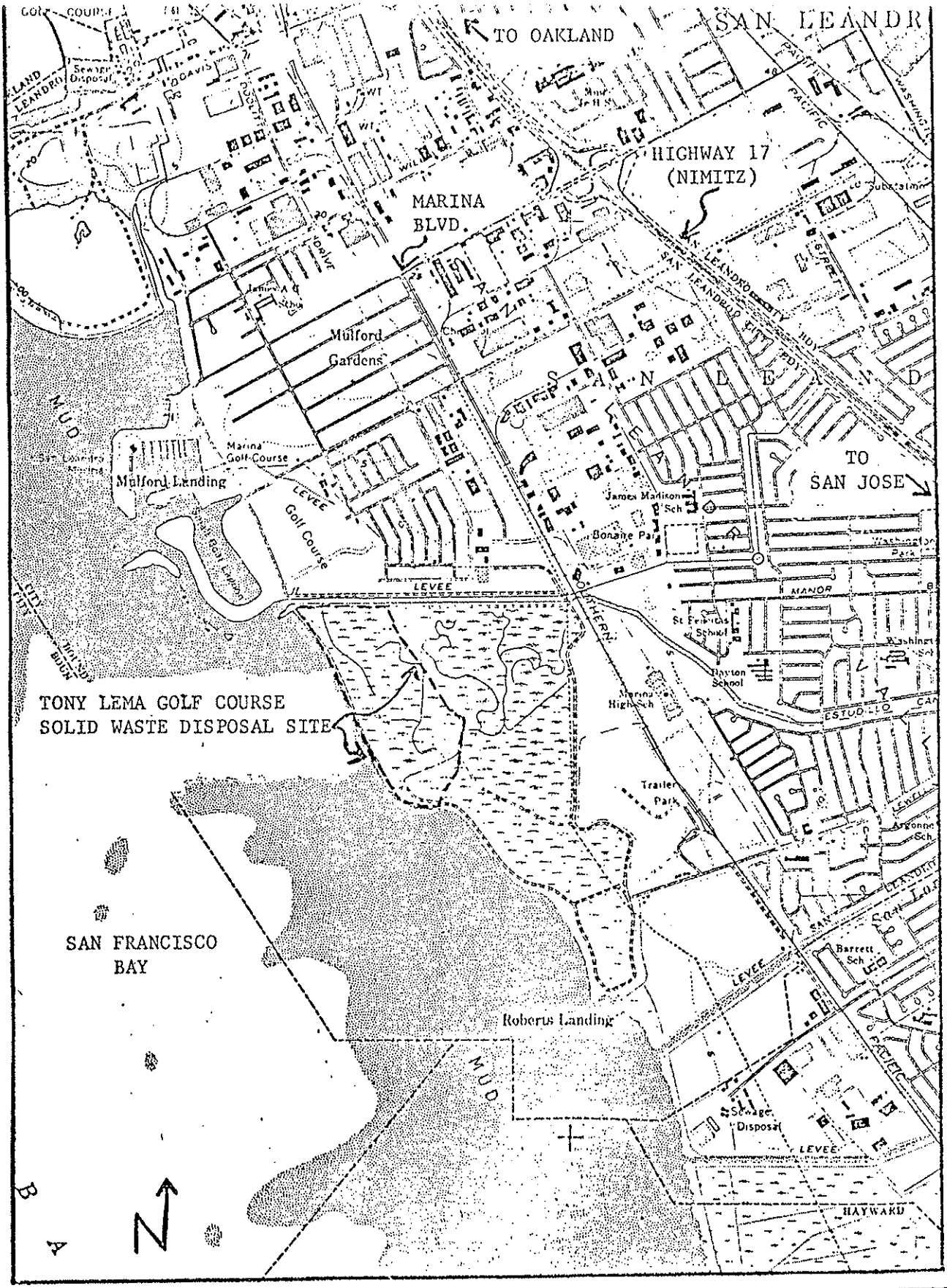
for Steven R. Ritchie
Executive Officer

Date Ordered: July 13, 1994
Attachment: Figure A - Site Map
Table A - Schedule for Sampling, Measurement, and Analysis

Table A - Discharge Monitoring Plan, List of Analytical Parameters

Parameter	Method	Frequency	Reference
Water elevation level	Field	Semi-annual	1
Temperature	Field	Semi-annual	1
Leachate elevation level	Field	Semi-annual	1
pH	9040	Semi-annual	3
Turbidity	Field	Semi-annual	1
Nitrate nitrogen	9200	Semi-annual	3
1,1,1-Trichloromethane	8010/8020	Semi-annual	3
Total organic carbon	415.1	Semi-annual	2
Benzene	8010/8020	Semi-annual	3
Chlorobenzene	8010/8020	Semi-annual	3
1,4 Dichlorobenzene	8010/8020	Semi-annual	3
Trichloroethylene	8010/8020	Semi-annual	3
Vinyl chloride	8010/8020	Semi-annual	3
Arsenic	7060	Semi-annual	3
Silver	6010	Semi-annual	3(b)
Cadmium	6010	Semi-annual	3
Mercury	7470	Semi-annual	3
Lead	6010	Semi-annual	3
Selenium	7,740.00	Semi-annual	3

1. Not Applicable
2. Method for Chemical Analysis of Water and Wastes, EPA600/4/79/029, revised March 1983.
3. EPA SW-846; (b)surface water samples

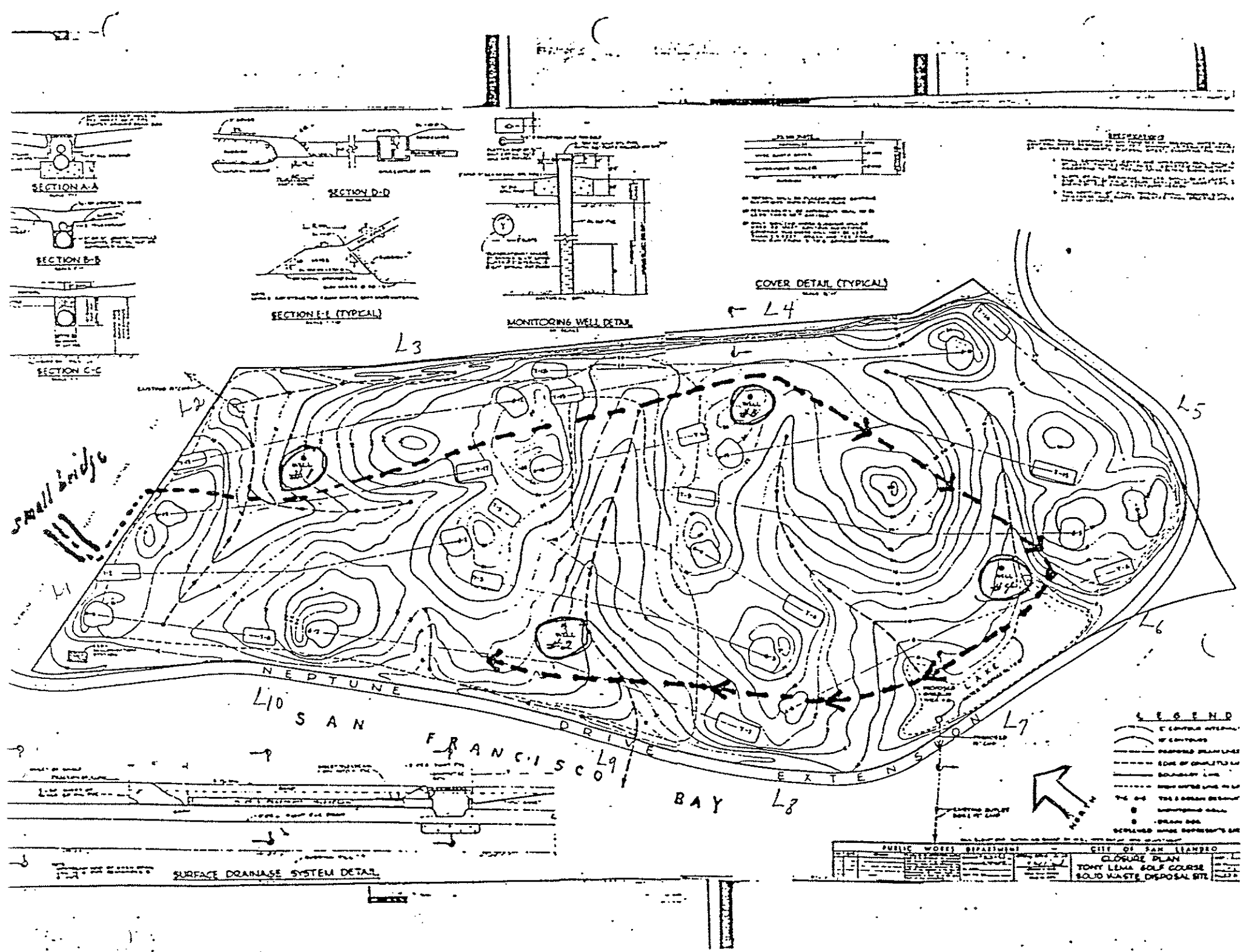


STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CITY OF SAN LEANDRO
TONY LEMA GOLF COURSE
SOLID WASTE DISPOSAL SITE
ALAMEDA COUNTY

Figure A - Site Map

ORDER NO. 78-101


SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E (TYPICAL)
MONITORING WELL DETAIL
COVER DETAIL (TYPICAL)
L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
SMALL BRIDGE
NEPTUNE DRIVE
SAN FRANCISCO BAY
EXTENSION
LEGEND
SURFACE DRAINAGE SYSTEM DETAIL
PUBLIC WORKS DEPARTMENT
CITY OF SAN LEANDRO
CLOSURE PLAN
TONY LEMA GOLF COURSE
SOLID WASTE DISPOSAL SITE